

Automobiles and Good Roads

A Department Designed to Help Farmers With Progressive Road Ideas.

TO construct highways correctly proper excavation should first be made and the subbase thoroughly well rolled with a roller of at least ten tons in weight. This should be done no matter what kind of base material is used. However, in the construction of a slag road, in order to obtain the very best results, it is necessary that the loose slag be spread on the subbase to a proper depth and then thoroughly rolled from time to time as the work progresses.

During such procedure it is recommended that the road be kept well wet with water, if water is available, and in finishing it is only necessary to put on top of the slag base about two inches of slag screenings, which contain dust and slag particles as large as one-fourth of an inch, which, like all cement, is inert in the dry state.

Road Steadily Improves.

This likewise should be thoroughly wet and well rolled. In fact, the top should never be put on except with plenty of water and thoroughly rolled. This is necessary because of the natural cementing qualities of slag, and in order to get it properly bound this material must be rolled to eliminate as many voids as possible.

A slag road built under these specifications, instead of deteriorating, as is too often the case with most other road metals, will gradually improve until the entire roadbed becomes a solid mass, thereby giving practically a concrete road.

It is sad indeed to watch road forces at work, not only along country highways, but more especially in the cities, where there are macadamized roads, for the waste of time and material is something appalling.

Slag Natural Cement.

Streets are repaired merely by throwing loose slag or some other material into the ruts and, instead of finishing the job by rolling and compacting the material, making it more or less permanent, the loose material is allowed to remain, and vehicles passing over it, instead of compacting the filling will cause the parties to grind into dust, which will be carried off either by the wind or by rapidly moving automobiles, leaving the street in as bad condition as before it was repaired.

Slag is the one material that not only is cheaper as a rule than all other road bases, but it is available in large quantities and at all times, regardless of the weather. The rainy season has no effect on the shipment of slag, as is the case in the rock quarries and grave pits, and by reason of the fact that it is usually loaded at points where a number of railroads center cars are available when such is not the case at quarries and gravel pits located exclusively on one line.

Advantages Are Told.

The advantages to be derived from the use of slag in building highways may be analyzed as follows:

- It is a natural cement rock.
- It will cement together if properly compressed by wetting and rolling.
- It is, as a rule, vastly cheaper than any other road material.
- It is available in large quantities and at all times, regardless of weather conditions.
- It is an impervious material.
- It is considerably lighter in weight than stone or gravel, consequently a great saving in freight is effected where distances are equal.

Inland Empire Crop Prospects.

On the basis of a canvass just completed by the International Harvester Company on the prospective wheat and cereal crops, figures of which have been submitted to the Spokane Chamber of Commerce, the increased yield this year in the Inland Empire will total between eight and ten million bushels more than the bumper crop of 1913. The added income of the Inland Empire farmers this year will be close to \$15,000,000, and this amount will not be additional crop altogether, but also returns from higher prices, which are inevitable, says the report.

Farmer Must Be Own Garage Man

From Location of His Home, Country Owner of Machine Must Attend to Duties Himself Which Promotes Economy and Better Knowledge.

By DENNIS H. STOVALL.

AS THE farmer must shelter and care for his own machine, and has not the opportunity to run into a garage for gasoline, lubricating oil or other supplies every time he gets ready for a drive, it is necessary for him to be his own garage man. Such provision, it must be said, proves to be an item of economy rather than undue expense. Also, it necessarily leads to a closer contact with the motor and all working parts of the car. This, in turn, brings a greater degree of pleasure in its operation.

The farmer is obliged to get his gasoline by the barrel, so he has a storage tank near his garage, and in such a place as to be conveniently reached. Thus he never leaves home without a plentiful supply of fuel. It is very, very seldom that a farmer's car is stalled by the wayside for lack of gasoline. He likewise keeps a plentiful supply of lubricating oil and grease on hand. So his motor never lacks for lubricant, and all working parts remain in perfect tune.

Gasoline Bought in Quantity.

Buying gasoline in quantity works a considerable saving within a year. Oil, even of the best, can be purchased at a much lower price when secured in barrel or half barrel lots. So the method that is adapted as a necessity becomes the very best that could be devised.

And, as the farmer's motor never lacks oil, it gives a long season of service with no repairs.

The same precaution must be followed in providing a supply of innertubes, patches, cement, cases and tire equipment. There is also found a small machine shop or at least a bench with all needed tools for doing lighter repairs on the machine. To accommodate all these features, the farm garage is usually built large enough both to shelter the car and allow ample space for the oil reservoir and tool kit. The gasoline tank is buried underground nearby, with a pipe and pump connection inside the building, convenient to the supply tank of the car.

Care of Auto Real Pleasure.

On our own country place we have learned that the closer we can keep to our machine in the matter of its operation and care, the more positive is the enjoyment we derive from its use. Even though we are obliged to move to town, we should continue to do our own work, simply because we have grown into the habit, and not because of any grievance against the garage man, for the latter, after all, in time of need, is truly as much the farmer's friend as of any owner of an automobile. But we have learned by experience that to care for our own machine adds at least 100 per cent to the pleasure of operating it.

Some Good Advice To Auto Owners

DON'T coast downhill. Don't go down a long steep grade faster than 15 miles an hour. Shut off your spark on descending a grade, with your clutch engaged in high, intermediate or low, according to steepness, and use your foot brake only when necessary. This not only cools the motor but saves your brakes. Don't be in a hurry on mountain grades and don't be afraid to make a noise so that others may know you are coming. When rounding curves sound your horn. You cannot make a sharp curve safely if going over 15 miles an hour. Make it a rule to take no curves at a speed of over 20 miles an hour. On mountain grades don't put too much trust on the outside bank, especially if your car is a heavy one. If you have to cool your radiator on a long hill and you have the water to do it with, make a good job of it. Let the radiator drain while you pour in cold water until the motor is cool. If you have no water, a quart or two of fresh oil in the crank case will help out.

Song of the Lazy Farmer.

My neighbor's got some formalin, to soak his oats and barley in; he says the seed is full of smut, that's been there since the crop was cut. Then when he plants it in the field, the smut germs grow and hurt the yield; instead of getting lots of grain, he'd harvest heads of smut again. He says to kill these germs of his, he'll soak 'em up and let 'em fizz; so all his grain is in a pile, and wetted down to soak awhile.

I'll let my neighbor toil and soak. I think this thing is all a joke. I believe in tater bugs and worms, but don't go much on these here germs. When neighbor sows alfalfa seed, he doesn't soak it, no indeed; before he plants the crop he puts a lot of germs upon the roots. Now I would like to have him tell, why ain't germs good on oats as well? This whole germ business sounds so queer, that I don't want 'e mover here; if he don't keep his germs to hum, I'll set the dog on them, by gum!

MIRRED!

By George F. Paul.

The shades of night were falling fast
When through a country village passed
A youth, who bore through slush and
slop
A carpet sweeper and a mop.
Excelsior!

The shades of night fell like a log.
They roused the cricket and the dog—
He floundered through the rust so
deep.
And as he stopped he swore a heap.
Excelsior!

He lived but seven miles from town,
Just where the Hollow road slopes
down,
Yet when at last he reached the place
Long whiskers covered all his face.
Excelsior!

No more he ventures in to town
To act the mud bespattered clown.
He's sitting there; he waits and waits
Till mud-dries on the pearly gates.
Excelsior!

A New Road Material.

A new road material designed to stand hard usage from automobiles is being tried by a Swiss engineer, W. Erlich, and is said to consist of a mixture of broken stone about the size of a hazelnut, but not limestone, with a binding material whose composition is not divulged by the inventor. In the present process the stone is heated at first from 100 to 150 degrees C. and mixed at this temperature with the melted composition. When in use the mass is remelted in order to put it on the road. A road roller heated to a rather high point is passed over the surface, the roller weighing about six tons. Reports state that a very good road surface can be obtained in this way.

To Sell Own Produce.

At a meeting held by committees of local fruit growers and grocers it was decided to institute a farmers' commission house in Centralia, Wash., this season. A good man will be placed in charge of the house, and another put on the road. The farmers will deliver all of their produce at the commission house, and what is not sold to local and outside dealers will be put through the cannery, thus insuring no over-production. At the meeting the grocers pledged to buy home-grown produce entirely.

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